

REMARKS

Careful consideration has been given to the Official Action of October 21, 2005 and reconsideration of the application as amended is respectfully requested.

Claims 44-55, 70-73, 75-79, 81 and 83-85 have been rejected under 35 U.S.C. 102 as being anticipated by Weaver.

Claims 56-64 have been indicated as being directed to allowable subject matter.

The independent claims in the application have been amended to be limited so that the impedance measuring unit measures a change of capacitance and the high voltage generator terminates the treatment based thereon. This completely distinguishes the claims from the cited Weaver patent.

Weaver discloses an electrical process for enhancing and/or controlling transport of molecules across tissue such as human and animal skin (Abstract). An effect called REB, reversible electrical breakdown, is used for decreasing the electrical resistance of layer of cells to pass fluid or ions there through. The decreased electrical resistance can be used as an effective means of monitoring electroporation effects (Col 5, lines 30-33). The values and changes in values of the electrical impedance between any pair of electrodes, either during or after any pulse or pulse series, are monitored to allow a determination of the occurrence of REB for any tissue transport situation (col 11, lines 6-11)

Thus, Weaver teaches that REB is characterized by a decrease in the electrical resistance of a tissue (col 5, lines 7-8). Such a decrease is present specifically when dealing with the skin and tissue in which several layers of cells are present. In this case, the electrical resistance is relatively high, because there is substantially no fluid between the cells.

The inventors of the present invention also tried to control the electroporation based on electrical resistance. While this may work satisfactory for control purpose, the resistance measurement was not reliable for determining when the treatment was completed. After long experimentation and due consideration, the invention was conceived that the capacitance might be a usable indicator. The following reduction to practice showed that when no further change of the capacitance took place, the tissue was ready-treated. The inventors thus discovered that the capacitance of the tissue was a factor that could form the basis for a more accurate and reproducible determination of when the treatment should be terminated.

This is explained in the specification of the present application at page 16, lines 1-6 of the WO 99/052589

Weaver teaches that the resistance is used for control purpose. The resistance may be determined by monitoring the electrical impedance between any pair of electrodes, preferably using a low level alternating current with a frequency between 100 Hz and 10,000 Hz, the mass transport resistance associated with low molecular weight ionic species such as Na⁺ and Cl⁻, which occur at naturally high concentrations in biological tissues, can be used to indicate the

occurrence of REB and thereby, the occurrence of electroporation and the associated high permeability state (col 11, lines 11-20).

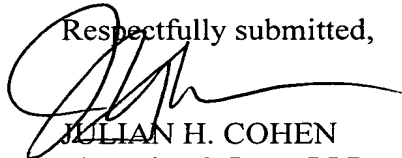
Nowhere in Weaver is there any mention that capacitance is of importance for determining the termination of the treatment. The word capacitance is never mentioned in Weaver. At most places "electrical resistance" is mentioned.

Weaver discusses the termination of the treatment in column 10, lines 11-15: "At that point, the pulse, shape, duration, frequency and voltage is maintained until a desirable amount of molecular transfer has occurred." There is no indication that the capacitance can be used for deciding the termination of the treatment.

Thus, Weaver does not anticipate the present invention as now claimed. Moreover, the present invention is unobvious in view of Weaver, because Weaver does not teach that the capacitance can be useful for determining when the treatment should be terminated.

By reason of the above action and comments it is respectfully submitted that the claims are now in condition for allowance early notice of which would be appreciated.

Respectfully submitted,



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